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## **GRASSROOTS ENGAGEMENT WITHIN A REGIONAL EDUCATION ENVIRONMENT – A PROGRAM THEORY APPROACH**

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**Key words: Engagement, Collaboration, Boyer, Bernstein**

### **ABSTRACT**

As with policy and programs generally, education community engagement tends to lack a coherent and explicit theory explaining why and how engagement strategies are likely to achieve desired and articulated outcomes. This paper addresses the problem by proposing a theoretical framework for educational and community cross-sectoral collaboration and engagement in the context of education sector engagement at a regional level in the northern corridor of Brisbane, Australia. Locating the relationships involved in engagement within a program theory of cross-sectoral collaboration and its proposed outcomes, this paper explores how Basil Bernstein's idea of classification and Ernest Boyer's concept of the scholarships of integration and application can be applied to identify the mechanisms through which engagement is generated. A series of cases studies is presented to illustrate the processes, incorporating shared physical, virtual and human infrastructure and curriculum initiatives that represent a multiplicity of activities and levels of engagement.

### **INTRODUCTION**

The Queensland University of Technology (QUT) and Education Queensland have been co-operatively participating in strategic, operational and process level regional engagement through the Northern Corridor Education Precinct (NCEP) over the past five years. The northern corridor is a rapidly growing region (transport corridor and catchments) that is projected to experience a doubling of the population by 2026. This statistic raises issues about future infrastructure and

resource needs for education and service provision in the corridor. In grounding this education community engagement the following definition has been adopted and continues to be applied.

*“Many definitions of both community and engagement exist but in this work, Community Engagement is simply the process by which the articulated outcomes specific to identified communities are achieved. In other words Community Engagement is the mechanism.”*  
(Delaforce, 2004, p.3)

Strategically, it was recognised that a key element to education sector engagement success was for it to link meaningfully with all local education providers in the region to challenge the norm, dismantle boundaries and greatly enhance learning opportunities through leveraged, active and open interaction. The NCEP evolved from research by Dr. Marguerite Nolan who conducted a project initiated by the then North Point Institute of (Technical and Further Education) TAFE (NPIT) now known as Brisbane North Institute of TAFE (BNIT) and QUT in 1999. The research found that the corridor catchments included areas that exhibited high youth unemployment, low education retention rates, a large number of families from low socio-economic backgrounds, a significant number of ‘at risk’ students and families where no member has accessed tertiary education. This research resulted in the formation of the NCEP, an alliance sponsored by QUT, BNIT and Education Queensland and supported by other regional education providers.

This alliance represents a co-ordinated and systematic attempt to address education sector and aligned issues in the northern corridor through strategies aimed at decreasing attrition/drop-out rates; enhancing regional retention; maximising cross-sectoral programs and processes; better utilising human, physical and virtual infrastructure; increasing youth employment and decreasing overall unemployment. This process has resulted in the inextricable linking of regional education and the regional communities it serves and in the terms of (Goddard, 1997, p.3) as cited in (Keane and Allison, 1999) represents regional level *“institutional thickness”* or measurable level of involvement. The process of designing a community engagement that effectively addressed these issues raised questions around appropriate logics and strategies to be employed concurrently at the system, organisational and or program levels to facilitate implementation, and to provide for evaluation and subsequent refinement.

The paper will identify and illustrate through a series of examples the mechanisms associated with the delivery of cross-sectoral education initiatives in secondary education programs, and tertiary level postgraduate studios. The initiatives have a pedagogical focus not only on the delivery of the set curriculum but also providing real life learning - learning that extends beyond the boundary of the classroom and the education sector, creating engaged teaching and learning environments for

not only the students but for education staff, both teaching and administrative and the broader community. These outcomes are important for the achievement of program goals that link the sectors core functions such as employment skills, mutual benefit and real world experiences in the curriculum at the regional level.

The examples below reflect this vision and display the benefits of universities, schools and all education providers working together. These initiatives form a framework that has the potential to further develop collaborative regional education sector engagement and community participation. They are not put forward as the panacea of best practice but are designed to share the stories and learning from grassroots education and community engagement. These represent sectoral participation in a multiplicity of activities and levels of engagement that include research, teaching, learning, and education sector community boundary spanning. As a result common regional language and values are created leading to ownership of a shared vision that reinforces not only the regional context, but also identifies with place.

## **CASES STUDIES**

We have chosen cases from our regional education sector that highlight different combinations of issues across the sectors and as such represent distinct challenges for successful cross-sectoral engagement, thus illuminating both case and generic learning around the mechanisms that support success. The first case reflects a discipline seeking to engage students through technology and halt a decline in interest, with significant down-stream issues for other sectors as the potential flow of students declines. The second case is also superficially around declining numbers in secondary schooling, but with a simultaneous growth in demand for higher education. However, it is the capacity to collaboratively and strategically use physical, virtual and human resources across the sectors that are showcased in this example. The final case study involves the use of postgraduate student skills within their curriculum to conceptualise the development of a cross-sectoral strategically planned precinct from existing resources, a process supported and mentored by the sector.

The cases present the NCEP collaborations in action and reflect how engagement has benefited the education sector and community. To ground them, the work of (Yin, 1999, p. 1215) has been of assistance with his linkages of logic models, mega systems and real world conceptualisation. Quoting (Wholey, 1979) Yin writes that:

*“For most case studies, a common operational framework increasingly takes the form of a “logic model” or a specialisation of hypothesized cause-effect-cause-effect-cause-effect patterns over time.”*

Further, (Yin: 1999, p.1209) explains that:

*“Case study methods are being rediscovered in...link(ing) their multiple components in new ways, producing “mega systems” of great complexity...the systems’ rules are in a high-flux state, continually and rapidly changing. Finally, important corporate affiliations and motivations are extremely difficult to track, much less understand.”*

#### **a. Case One – Spatial Technologies**

An implication of our growing knowledge economy and the digital age is the recognition that citizens require a greater and more diverse range of literacies than were needed 10 years ago. Spatial literacy is one of these multiple literacies growing in significance. Spatial technologies include geographic information systems (GIS), global positioning systems (GPS) and remote sensing (RS) tools. They are growing in significance in our everyday lives. Spatial thinking allows individuals to explore structured problems, find answers and express solutions using properties of space. In America in 2006, The National Research Council recommended all schools incorporate ‘spatial literacy’ into curricula to reflect its increasing importance as ‘a skill for every day living and working in the 21<sup>st</sup> century’. (Learning and thinking spatially: GIS as a support system in the K-12 Curriculum, 2006).

Spatial literacy does not require the development of a new course but rather should be integrated into existing curricula. In Australia this integration largely occurs in the Social Sciences, more specifically Geography. The importance of Geography as a discipline is highlighted by John (Fahey, 2006) the Australian National Geographic Society president and CEO in his statement:

*“Geographic illiteracy impacts our economic well-being, our relationships with other nations and the environment, and isolates us from our world. Geography is what helps us make sense of our world by showing the connections between people and places. Without geography, our young people are not ready to face the challenges of the increasingly interconnected and competitive world of the 21<sup>st</sup> century.”*

At a regional level, Geography as a subject in schools is experiencing dwindling numbers and many schools struggle to offer it in their subject selections. Anecdotally, reasons for this include students’ perception that it does not provide authentic and grounded learning experiences, the lack of marketing and poor understanding of career pathways and possibilities associated with the subject. The region has an ageing teaching population (average age of 48 years) and frequently these digital immigrant professionals need significant support to change teaching practices, embed technology and truly meet the needs of the student in the 21<sup>st</sup> century.

In 2005, Geography teachers at three schools recognised that it was imperative that they met student-learning needs through the integration of spatial literacy into their subject curricula. All three had very limited Information Communication Technologies (ICT) knowledge and skills but were enthused by spatial thinking, the possibilities for their students and a passion to keep alive a subject that is becoming increasingly important in our life. However, teachers were siloed within their schools and curriculum areas. It was difficult for them to engage in broader discussions and implement initiatives into their teaching practices. The NCEP provided the platform for such relationships and the space for engagement and interaction. As a result the three schools began a cross-sectoral and cross-disciplinary journey that is constantly evolving and deepening. The NCEP on their behalf successfully sourced external funding for this to occur and to support ongoing activities. Without the NCEP the discourse would not have happened at a horizontal level. The teachers then transferred the shared knowledge and skills to their own context, and to the regional level thematic. As a result an engaged learning model was embedded in the curricula which was further enhanced with the development of a pilot web-based GIS tool by QUT, which eased the cost of embedding and assisted regional level decision making as detailed in (Delaforce, W., Rich, B., Savage, B., Adkins, B., Hall, C., and Caldeweyher, D. 2005).

An example of this is Craigslea State High School in which the space for engagement created by the NCEP allowed the opportunity for a mapping of the students and school catchments and socio-economic environment. This was the pre-cursor to the application of the model within the schools. The collaboration and development of the catchments' data led to the teachers returning to their own context and embedding the thematic within their individual curricula across discipline boundaries. Initially, Geography students developed a virtual tour as lead up to and part of a Stradbroke Island camp using GIS technologies. Students unable to physically attend the excursion were able to participate through an ICT virtual experience. This initiative has now developed to become embedded in a wider range of discipline areas both within the school and across sectoral boundaries. The schools benefits include the continuation of Geography as a subject choice, enhanced knowledge and skills in teachers, motivation and engagement of students, cross-disciplinary developments, authentic learning experiences and students' greater understanding of place and space.

The generic results of this engagement include: the emergence and continuation of cross-sectoral disciplinary discussion and strategy; planned and thematic delivery of curriculum based on and responsive to regional issues and the creation of new knowledge to be shared with the sector and community and a common vision that supports an emerging transdisciplinary approach.

## **b. Case Two – Accounting**

In 2004, Education Queensland initiated one of the greatest reform processes to be implemented in Queensland schools. A crucial element of these reforms was the compulsory development of a Student Education and Training Plan (SET Plan) for each student. This plan is a living document that reflects the students interests, strengths, weaknesses, goals, desires and life circumstances e.g. sport participation, part time work and care responsibilities. It provides the basis for subject selection in the senior phase of schooling and supports the organisation's goal of providing learning opportunities to meet the needs of all students.

However, no one organisation can provide all experiences for all students, so the need for collaborative partnerships to maximise offerings is essential. Schools are being encouraged to share human and physical resources across campuses and organisations, but as historically competition has existed, there is suspicion and hesitation to allow students to attend classes on another school's grounds.

In order to challenge these issues, a space for engagement was created for school leaders to map human, physical and virtual resources across the region to maximize learning opportunities and more readily meet the needs of students. The process was facilitated by nominated NCEP boundary spanning roles that had the imprimatur to facilitate such engagement. This process identified Accounting as a subject that was struggling in schools to attract sufficient numbers to run classes yet was in significant demand in the region at tertiary and employment levels.

In response to this, QUT as part of the NCEP supported the development of a host delivery model for Accounting. Secondary Accounting is now offered at the QUT campus at Carseldine. It is taught by an Education Queensland teacher and in 2006, 18 students from two schools attended the class. Neither school had the numbers to run Accounting in year 11. Without this initiative and the leverage of the relationships and understandings from the NCEP, the institutions would not have been able to design a unique program to mirror the requirements of the students and the cross-sectoral objectives of the NCEP members. The class meets face-to-face once a week (Tuesday 8.00 – 9.30 am) and the remainder of the interaction is by virtual contact. The teacher has Online Teaching (OLT) space on the QUT system. The students are enrolled as visiting QUT students and have access to QUT resources. They will integrate with and articulate into the First Year University Accounting program in their final year of high school where they will study university Accounting units whilst still completing high school studies.

This case demonstrates how as the result of NCEP endorsement and facilitation, cross-sectoral curriculum mapping has been able to occur; continued delivery of Accounting to students across school boundaries ensures critical mass student numbers; and the planned strategic use of cross-sectoral resources can empower participation in a broader sectoral and community model.

### **c. Case Three – Post Graduate Studio**

This studio revolves around a physical space bounded by secondary, special and environmental education sites and a tertiary campus with the potential for integration of the above resources to create a Carseldine Education Precinct. The creation of a space for engagement allowed all stakeholders to actively participate in a potential planning scenario for future cross-sectoral use of the above currently separate physical spaces. As a result, QUT landscape architecture and urban design post-graduate students undertook a capstone studio to investigate the potential for a shared educational facility. This was done as part of their curriculum and assessment in the form of a consultancy to the NCEP utilizing students' practice knowledge as a mutual benefit outcome to the education community, the students and the institutions.

The students developed strategic plans, directions and environmentally sustainable development opportunities for a cross-sectoral education precinct scenario presented to them by the stakeholders (NCEP). The results of this stage were presented to stakeholders as group work. A second level saw individuals pursue agreed areas of interest endorsed by the stakeholders, which was then presented to the community as the final stage of their work. This model will be progressed in future years as part of the studio program at the tertiary level and the findings of each year are shared back to the NCEP stakeholders to inform potential development, collaboration, infrastructure sharing and planning at the site. The work is also planned to be used by the other education sectors as a model (including a potential international collaboration) to inform thematic curriculum initiatives.

This example explores strategic level linkages and showcases how through the use of existing sector resources community and sectoral issues can coalesce. The postgraduate students became significantly engaged in the thematic challenge to test their skills and provide a planning legacy for the NCEP that displayed a mutual reciprocity.

### **Case Discussion**

These cases represent how the collaborative local group that is the NCEP has been able to positively effect the regional level delivery of education and the relationships of the broader sector into the community. As detailed above benefits have emerged and been highlighted in



each case and involve not only curriculum, but also leveraged support and resource sharing; strategic cross-sectoral planning and the empowerment of individuals to work outside the traditional sectoral and organisational boundaries on behalf of the sector. What is evident in the cases is the desire for the education sector to engage not only with itself in the provision of educational outcomes but to seek a mutual reciprocity with the community in its many and varied guises. All cases displayed assessable curriculum and reflective learning that would not have been possible without the NCEP, but also showcases the link to regional themes, knowledge creation and relationships that assist with the sustainability of the initiatives.

The cases explore the linkages between different issues. A number of generic findings around enabling mechanisms have also evolved and will be discussed later in the paper, but can now be summarized as the cross-sectoral ability to host and support a space of engagement outside traditional organisational, geographic and political boundaries; engage empowered representatives who can span the boundaries between sectors, organisations, disciplines and the community; share physical, human and virtual infrastructure across sectors; strategically identify, plan, operate, fund and implement regional level initiatives and also evaluate articulated cross-sectoral strategies, processes and outcomes. The paper will now reflect how the NCEP practice has been theorized and how good works have been translated into praxis with the NCEP Scholarship of Engagement framework and NCEP collaborative cross-sectoral delivery model.

## **ISSUES FROM PROGRAM THEORY MODELLING**

In previous published work (Delaforce, 2004) and (Delaforce et al, 2005) the use of Program Theory and Logic Models in education sector engagement has been explored, specifically across the Australian jurisdictional context. Program Theory emerged about thirty years ago from the evaluation discipline and has gained wide acceptance as an important framework for understanding program workings and assessing their effectiveness (Friedman, 2001). (Rogers, 2000) in (Baldwin et al, 2004, p. 17) describes Program Theory as “*an explicit representation of the ‘mechanism’ by which programme activities are understood to contribute to the intended outcomes.*” (Chen and Rossi, 1992) also in (Baldwin et al, 2004, p. 17) see this kind of framework as a systematic guide to practice, providing “*a specification of what must be done to achieve the desired goal, what other important impacts may be anticipated and how these goals and impacts could be generated.*”

This method involves the identification of the underlying logic by which a program is supposed to produce its intended outcomes. Mapping successive steps and measuring, inputs, throughputs, and outputs against articulated outcomes and identifying the mechanisms or mediators by which the desired changes are expected to occur in order to achieve this. Allowing for a shared understanding of the nature of the program, its measures, intended effects and the working logic required for operational effectiveness, creates confidence that an intervention actually works and that it triggers the expected outcomes.

Without an understanding of the articulated theory and underlying assumptions of the desired change as discussed by (Hernandez, 2000) it would be impossible to compare and contrast actual and expected outcomes. The understanding and use of the interrelationships between client and system conditions, service strategies, indicators and outcomes allow for an examination of why results occur and can lead to improved program delivery and quality. (Baldwin et al, 2001) explain Program Theory links theory and practice and hypothesize how programs work and that since programs are multifaceted they may need to occur over time as part of a repetitive process. As outlined by (Dahler–Larsen, 2001) it is expected that some contexts are more hospitable to certain program mechanisms than others.

As a result of the mapping of the Articulated Policy Framework using a Program Theory approach in (Delaforce, 2004, p. 8) it was argued that an integrated national strategic legislative and policy model had emerged in Australia, supported in Queensland and at QUT. This began to be incorporated into articulated policy and planning and in turn represented a modern generational systemic attempt to align the broader education sector at all levels with community, business and each other. What emerged was a policy level bipartisan strategic vision for the education sector, in which not all jurisdictions are the same, but are now able to be integrated at an operational and collaborative level. This was an example of impressive rhetoric, language and intent designed it would seem, as an enabler for the education sectors to work cohesively, sharing and leveraging information, infrastructure and resources and designed to maximise the scarce public dollar to the benefit of all parties and their communities. The published Articulated Policy Framework referred to above clearly showed that to this point the systemic model best described a “what to do” not “how to do” process.

The gap in the policy mapping identified that no mechanism to undertake the engagement task had been articulated in any of the policies, with the exception of funding, and that is presumably dependent on evidentiary based reporting. These were not further developed and continue to be a point of national debate and negotiation. In hindsight, this is not a negative outcome for it allows regional and organisational responsiveness to reflect upon the uniqueness of circumstances, in turn allowing work to begin on the measurement and evaluation of both codified and tacit results.

The NCEP has provided the opportunity for the participants to reflect on their real world experiences at the regional level and as detailed by (Yin, 1999, p.1216) has provided a link between the case methodology and the Program Theory framework in use for ongoing project work. Yin states, “... *an invaluable feature of the case study method is the ability to “discover” while in the process of doing research.*” In turn (Yin, 1999, p.1212) flags that “...*investigators doing case studies are not “theory driven”... but are “driven to theory”.*”

This is consistent with the problems facing educators attempting to implement engagement strategies. Practitioners are required to implement programs that in this “driven to theory” framework, can be seen to represent nascent theories of key relationships required to produce identified outcomes. In this paper reflections have resonated with the work of Ernest Boyer, around scholarship, particularly those of integration and application from his discourse based in universities, and of Basil Bernstein’s discussions of classification, boundaries and broader social mechanisms around schools.

### **“Driven to theory” explored by Boyer and Bernstein**

#### **a. Boyer**

As expressed by (Adkins, 2006) referring to (Johnston, 1998) in her review of the salience of Boyer’s four areas of scholarship discovery (research), application, integration, and also teaching for different periods of change in British Higher education, Johnston identifies the requirement for the scholarships of integration (and we propose application) in terms of the need to build conceptual capacity. This is based on overlapping disciplinary areas involved in a shift to an increasingly vocational emphasis in universities. For (Boyer, 1990, p.77) universities need to “*help students better understand the interdependent nature of our world*”. This requires “*making connections across the disciplines, placing the specialties in larger context, illuminating data in a revealing way . . . serious, disciplined work that seeks to interpret, draw together, and bring new insight to bear on original research*” (Boyer, 1990, p.18–19).

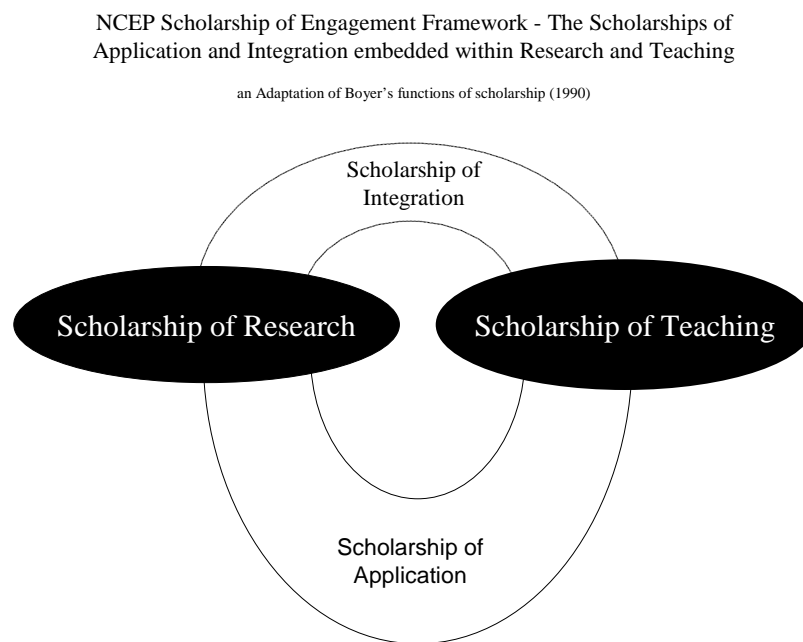
In addition to new knowledge generated through making connections across the disciplines, the scholarship of integration requires a “*connection to the larger world*” where inquiry is conducted in “*overlapping academic neighbourhoods*”. It also integrates with contexts of use in which the objects of research find specific uses and meanings. As such it was proposed to mitigate against rigidity within the system and to provide the nodes for growth of new disciplines and applications (Johnston, 1998). In this context of change a key requirement for knowledge integration was also the capacity to reconcile “old” and “new” domains of knowledge.

In the Australian context, (Candy, 2000) has argued that the scholarship of integration should be seen as an important attribute of graduates rather than be confined to strictly academic contexts. In line with Boyer’s account, he sees integration occurring in at least three main ways for graduates: integration within a discipline or field, incorporation of new knowledge acquired in real world settings and drawing together insights from different disciplines or fields of study. Within a field of study, integration is increasingly required to synthesise different lines of development and approaches to provide foundations for inquiry and applications. In relation to the second aspect of integration, the requirement to incorporate new knowledge has intensified with the demand for greater responsiveness to the ‘market’ and industry partners. This process has also moved away from a “*one time handout*” approach to a transfer, instead involving “*an ongoing multi-way exchange*” (Formica, 1996, p. 255). Students and graduates require the capacity to reconcile disciplinary frameworks with new knowledge. The third aspect of integration, pertaining to the drawing together of insights from different disciplines, is a key requirement in the production of new knowledge, and thus also in enabling a capacity to respond to real world problems that do not fit neatly into specific disciplinary frameworks.

This then segues into (Boyer’s, 1990, p. 21) Scholarship of the Application of knowledge as scholars and institutions move towards engagement and begin to ask the following questions: “*How can knowledge be responsibly applied to consequential problems? How can it be helpful to individuals as well as institutions?*” and further, “*Can social problems themselves define an agenda of scholarly investigation?*” (Candy, 2000) suggests that each of Boyer’s fourfold divisions of the academy into scholarships of discovery, application, integration and teaching has a direct counterpart outside the university and may be considered as attributes for graduates. While the implementation of these principles is critical for universities’ competitiveness in teaching and learning, in research and community engagement, we have heard surprisingly little of this area of scholarship. One key reason for this is that it is a principle that lacks sufficient understanding of the processes and rationales involved.

People often struggle for frameworks that enable them to locate the requirements for integration and application in the broader set of relationships in which they are embedded.

In Figure 1. below a framework of how through the NCEP work, an adaptation of Boyer's functions of scholarship has emerged to enable an understanding that education sector engagement resides in the interplay between the scholarships of integration and application. Together these represent the functions of education sector engagement that have been articulated in Australian policy from national to local, organisational or regional levels and are enabling mechanisms within the core business and overlapping Boyer scholarship domains. Therefore, the scholarship of engagement can be argued to be a boundary-spanning interface into the real world from the sector.



**Figure. 1.**

### **b. Bernstein**

One intersecting feature of this work is the acknowledgement of the central contribution of Basil Bernstein's framework to our understanding of changing knowledge landscapes. (Bernstein 1996, p. 20) uses the concept of classification to "*...examine the relations between boundaries and the category representations of these boundaries...whether these categories are between agencies, between agents, between discourses, between practices.*" Bernstein's work in capturing changes in the knowledge landscapes of education is of particular relevance. He is credited with identifying the erosion of previously strong boundaries between singulars (traditional disciplines such as physics, chemistry, and sociology). These singulars conducted discourses that were discipline specific with very few external references. In the latter half of the twentieth century he recognised a process of regionalisation of knowledge, where, for example, medicine, architecture, and, more recently creative industries, came to constitute a domain of knowledge made up of a mix of singulars.

However, it was not only the boundaries between singulars that were undergoing transition. The regions were also viewed by (Bernstein 1996, p.23) as encompassing “*the interface between the field of production of knowledge and any field of practice.*” As a result, education sector engagement is enabling the weakening of boundaries between both singulars and the interface with fields of practice. The lessons for articulating knowledge economy policy frameworks from Bernstein's perspective lie in the tasks at stake in engaging with policy as has been shown in the policy framework mapping from (Delaforce, 2004). The integration of disciplines as a result of engagement mechanisms at the interface with practice is creating the requirement for new discourses which 'recontextualise' these domains. This also appears to fit with the adaptation of Boyer above, as the structural discussions around the enabling mechanisms for scholarships and discipline by Bernstein coalesce to inform the ongoing policy and operational debates in Australia.

This will enable common (albeit debated and contested) discourses for the recognition of knowledge in multiple and trans-disciplinary fields aligned to real world outcomes and mutually beneficial engagements. For Bernstein, these issues of recognition arise with the erosion of previously strong boundaries. It stands to reason that a means of systematically identifying and articulating knowledge and meaning is central to questions of measurement, evaluation and planning education sector engagement.

A further knowledge interface, which needs to be addressed, is that which deals with the measurement and judgement of quality and impact in the context of innovation policies. As theorists of measurement such as (Pawson, 1989) remind us, measures must not only be faithful to the phenomena they represent, they must also translate the phenomena into a coherent framework in which the measures will be taken up and used. For this reason, the scholarship advocated here must be capable of addressing the interface between (i) the recontextualising discourses facilitated by education sector engagement and (ii) discourses, values and priorities of policy frameworks.

A scholarship committed to influencing measurement of quality and impact must also turn its attention to the processes that underpin the causal relationships involved. Contemporary approaches to program development and evaluation exemplified by (Dahler-Larsen, 2001) recommend that we examine programs to determine if, when and how they work. The approaches must develop plausible theories about the causal processes underpinning them and the conditions under which they are most likely to produce desired effects. This allows us to understand the patterns of impact and the context responsible for producing them (Bourdieu's "relational networks", Bhaskar's "mechanisms" and the concepts of Scientific Transidenticalism) should as be considered.

## THEORETICAL MODEL

### Interface and Boundary Spanning

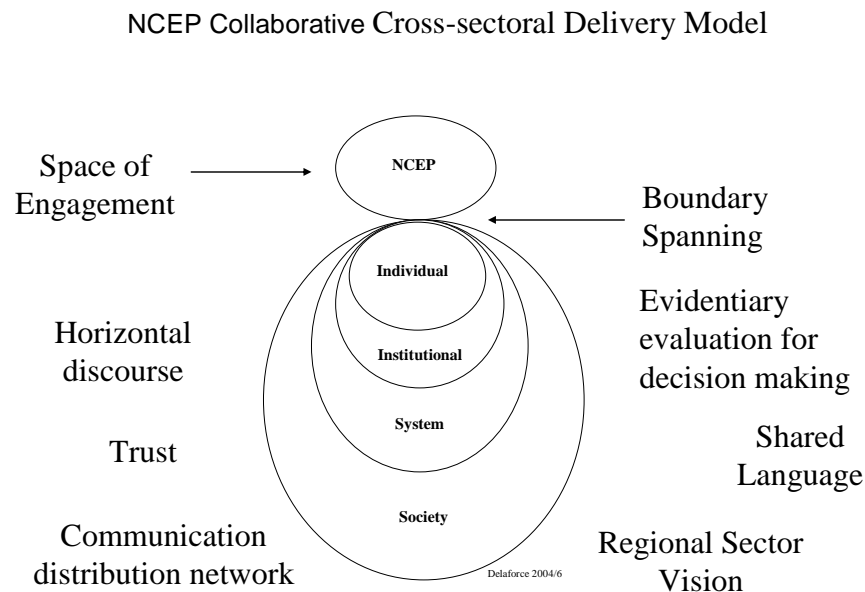
(Delaforce, 2004), (Delaforce et al, 2005) and (Keane and Allison, 1999) identified the existence of an emerging body of published work. It related to community and regional engagement and the provision of a point of departure, specifically the idea of an *interface* between the University, education sector and more broadly community. What was this interface? The term interface also surfaced in (Burkhardt, 2002, p. 146) in which it is stated that:

*“The adaptive capacity of higher education is not only rooted in the ability for institutions to change one by one, but in a system level capacity which depends upon a specific form of leadership. This leadership process is constructed at the boundary between the higher education at large and its interface with society.”*

Burkhardt goes on to suggest that the link between a system wide responses to higher education engagement requires a leadership capacity that functions at the level of ideas and values rather than a defined organisational framework. This was the link to the QUT and NCEP process, with an institutional-community interface that functions at the level of ideas and values. As outlined above the NCEP had adopted a cross-sectoral leadership role in regional education and learning and was articulating an operational shared vision. The NCEP and QUT were operating as Burkhardt suggested, at the interface boundary, an assertion that now also begins to be supported by the coming together of the Boyer and Bernstein interpretations.

Below is a representation of the operations of the NCEP and the mechanism for education sector (and others) engagement Figure 2. The geographic assimilation of education participants across all their pre-existing boundaries has created the space in which a series of communities (the case studies presented are representative of this) with an axis around education at the regional level have emerged. These communities evolved synergistically, but the commonality was they did not previously exist. They emerged as virtual bounded spaces specifically designed to create a dialogue, a shared language and distribute information of common benefit. The work of Benedict Anderson from 1983 onwards detailing the concept of “Imagined Communities” around emerging nation states and subsequent work by McNeil in 2001 around organisational “Spaces of Engagement” derived from “Imagined Communities” have also been significant in the development of this model. They will be discussed further in later work.

The framework below provides a link to theory and the translation of theory into praxis that allows people to engage in and evaluate engagement in a reflective and reflexive manner.



**Figure 2.**

The model represented in Figure 2. grounded within the education sector in the northern corridor geographic location, has identified a number of mechanisms that allow the articulated policy outcomes to be achieved and eventually evaluated. These include the capacity to:

- host and support a space of engagement outside traditional organisational, geographic and political boundaries;
- engage empowered representatives who can span the boundaries between sectors, organisations, disciplines and the community;
- share physical, human and virtual infrastructure across sectors;
- strategically identify, plan, operate, fund and implement regional level initiatives and
- evaluate articulated cross-sectoral strategies, processes and outcomes.

Membership is open to all within the population (education sector) and the virtual and physical spaces of engagement begin to operate outside the previous bounded world. On reflection the NCEP had created a community based on a geographic boundary, populated by disparate members many of whom had never met face to face and created a space of engagement that previously had not existed. Drilling further into the original identified point of departure, the interface, there began to emerge internal organisational benefits happening in concert with the meta level engagement.



With an environment of information sharing, language creation and ongoing dialogue evolving within the NCEP, it became apparent that the disciplinary and organisational silos and boundaries internal to agencies and institutions began to weaken as well, or more accurately become permeable, and in turn enhance horizontal communication.

The traditional vertical structural discourse remained but seemed to be supported by this horizontal dialogue. Initially, I was of the opinion that we needed to break down the silos but as the investigation continued it became noticeable that permeability was preferable. In this case, it was the NCEP that was bringing together the regional education providers, in which discourse allows for communication dissemination, development of shared language, vision and trust. This represented the way the NCEP and members are able to transcend the local territorial scales and concurrently participate in collective action and mutually beneficial internal and external sectoral and community engagements. Calling on the work of Burkhardt and Keane and Allison the interface of the boundaries is the point at which individuals and organisations can move across the boundaries as representatives of the NCEP. This capacity for boundary spanning movement develops further the idea of Transient Community Engagement (TCE) put forward in an earlier paper (Delaforce and Buckley, 2003). Here it was proposed that the TCE is constantly moving between, within and through the many layers of individual, organisational and community structures and represents the nature of the complex relationships between the individuals, groups and communities within the wider community.

## **CONCLUSION – THE MODEL AND THE CASE STUDIES**

In the language of program theory the following mechanisms or moderators have emerged synergistically and been replicated as imperatives in the NCEP examples presented and the many others projects under way as well as in the models detailed in Figures 1. and 2. These include the capacity to create a space in which members and guests can engage outside traditional bounded space, whether it is a discipline, sector, region or any other area. From this can evolve a common language, horizontal discourse that informs vertical discourse, a distribution network for the dissemination of both shared information and newly created collective knowledge. As a result, from this constantly evolving dialogue and transaction can emerge a regional meta level unbounded vision that allows collaborative process, interaction, resource utilisation, shared knowledge creation and decision making capacity.

Once the meta level space exists a programmatic evidence based mechanism can emerge to produce sustainability through evidence, knowledge and visualisation creation based on the achievement of agreed outcomes. The point of departure for this model has been the creation of empowered boundary spanning cross-sectoral roles that can operate in and on behalf of the engaged spaces inhabitants. These roles that can facilitate, coordinate, evaluate, apply for funds, report on and grow this engaged space, which is currently unencumbered by boundary protocols.

This paper discussed the theory, context and outcomes of our reflective process, building on the work detailed in (Delaforce, 2004) and (Delaforce et al, 2005) and demonstrating the benefits that can be realised at a regional level. Through collaboration, sharing of information and resources, the sector has accessed greater insight and outcomes across previously impenetrable artificial organisational and regional boundaries. A significant further benefit of this approach is the understanding of the readily recognisable synergies and gaps that historically exist and which become apparent when a regional level thematic view is applied. As a result, the paper sets out a theoretical framework for educational and community cross-sectoral collaboration and engagement. In support of this a series of representative cases of education sector engagements have been presented at the regional level in the NCEP of Brisbane, Australia. The model brings together a multi-dimensional and disciplinary process that allows the creation of space in which various members can enter into an unencumbered discourse. These mechanisms identified through a constructivist approach to program development, could be seen as key requirements for boundary spanning to produce the institutional thickness required for collaboration.

This discourse located the relationships involved in engagement within a program theory of cross-sectoral collaboration and its proposed outcomes; it identified a multiplicity of activities and levels of engagement. This is consistent with the problem facing educators and community attempting to implement education sector engagement. Practitioners are required to implement programs that in this “driven to theory” framework can be seen to represent nascent theories of the key relationships required to produce jurisdictionally identified outcomes. In the cases discussed in this paper reflections on practice have resonated with the work of Ernest Boyer, around scholarship, particularly those of integration and application from a discourse based in universities, Basil Bernstein’s discussions of classification, boundaries and broader social mechanisms around schools Benedict Anderson’s concepts of symbolic and virtual “Imagined Communities” and subsequent resultant works on “Spaces of Engagement”.

The use of this regionally based approach and the space to discuss, plan and implement initiatives reflects the larger patterns of interaction outlined as part of the systemic education sector policy framework. Collectively, the approach taken has created an environment that is both hospitable to the enabling mechanisms detailed above at a regional level and sufficiently grounded within the social and policy context to bridge any gap between articulated and deliverable outcomes. The mechanisms of boundary-spanning detailed provide a common context for social patterns and problems to be viewed by the sector. Specifically, through the engagement activity around shared infrastructure and capacity building, all stakeholders have the potential to participate in an activity that abstracts them from the normal sectoral divisions in the field of education. The next phase of the work will be to further weave the published works from (Delaforce, 2004), (Delaforce, Adkins et al 2005), (Delaforce, Rich et al 2005) and this paper into a cohesive narrative and robust work of praxis and publish the evidence and logic models of the engagements.

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